

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/880,269

Filing Date: June 13, 2001

Title: Uncrosslinked Foams Made from Emulsions

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IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A process for making an uncrosslinked polymeric foam comprising:
 - a) mixing a reactive phase comprising at least one polymerizable material comprising a monomer containing a reactive functional group, the polymerizable material having an effective glass transition temperature sufficient to permit the formation of a stable foam upon polymerization of the material and subsequent removal of an immiscible phase with no effective amount of crosslinking agent and at least one emulsifier with at least one photoinitiator system and a liquid immiscible with the reactive phase to form an emulsion wherein the immiscible liquid forms a discontinuous or co-continuous phase with the continuous reactive phase;
 - b) shaping the emulsion; and
 - c) irradiating the emulsion with actinic radiation having a wavelength of about 200 to about 800 nanometers, thereby causing the emulsion to polymerize such that it forms a stable foam
2. (canceled)
3. (previously presented) The process of claim 1 wherein the initiator system further comprises a thermal initiator.
4. (previously presented) The process of claim 1 wherein the initiator system further comprises a redox initiator.
5. (original) The process of claim 1 wherein the foam formed has an effective glass transition temperature of at least 30°C.
6. (original) The process of claim 1 wherein the polymerizable material comprises an ethylenically unsaturated monomer.

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7. (original) The process of claim 1 wherein the polymerizable material is a cationically-curable monomer.
8. (original) The process of claim 1 wherein one polymerizable material and the emulsifier are the same material.
9. (original) The process of claim 1 wherein the immiscible liquid is water.
10. (original) The process of claim 1 wherein the immiscible liquid comprises at least 74 volume percent of the emulsion.
11. (original) The process of claim 1 wherein the reactive phase further comprises materials that can incorporate functional groups into the foam.
12. (original) The process of claim 1 wherein an open cell foam is produced.
13. (original) The process of claim 1 wherein a closed cell foam is produced.
14. (withdrawn) An emulsion having a continuous reactive phase comprising at least one polymerizable material having a glass transition temperature sufficient to permit the formation of a stable foam upon polymerization of the material, no effective amount of crosslinking agent, at least one initiator system, and a discontinuous or cocontinuous phase comprising a liquid immiscible with the reactive phase.
15. (withdrawn) The emulsion of claim 14 wherein the immiscible liquid comprises at least 74 volume percent of the emulsion.
16. (withdrawn) The emulsion of claim 14 wherein the immiscible liquid is water.

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17. (withdrawn) An open cell uncrosslinked foam able to be collapsed when exposed to one or both of heat and pressure.
18. (withdrawn) A closed cell uncrosslinked foam of homogeneous composition comprising residue of a photoinitiator that absorbs at wavelengths of 300 to 800 nanometers.
19. (withdrawn) The foam of claim 17 wherein the foam absorbs liquid.
20. (withdrawn) The foam of claim 19 wherein the fluid is transported primarily in a direction normal to a major surface of the foam.
21. (withdrawn) The foam of claim 17 used as an ink receptor.
22. (withdrawn) The foam of claim 17 used in an identification card.
23. (previously presented) The process of claim 1, wherein the step of shaping comprises coating the emulsion on a substrate.